

Memo

To: The U.S. Environmental Protection Agency

From: Richard Kinch, *on behalf of the National Ash Management Advisory Board (John L. Daniels, Jeffrey C. Evans, Randy Kabrick, Robert Puls, Krishna R. Reddy and William Wolfe)*

Date: April 26, 2018

Re: Comments regarding EPA's proposed amendments to the CCR Rule

This document provides comments on the Proposed Amendments to the National Minimum Criteria (Phase One) for the Disposal of Coal Combustion Residuals, as agreed upon by the Members of the National Ash Management Advisory Board¹ (NAMAB).

As a general matter, EPA proposes numerous changes that are directed at addressing issues with regard to the current CCR Rule. There is, however, little in the way of data and analyses presented in the proposal. Thus, the comments provided are generally not a detailed critique of data and analyses, but more of an overall technical assessment of what is missing and a presentation of factors that can aid EPA in the development of a sound final regulation. Fortunately, there are adjustments that EPA can make to the proposal that build on existing EPA programs and create a simpler and more environmentally sound amendment to the existing rule. The following represents our comments on various aspects of the proposal:

§§ 257.73(a)(4), 257.73(d)(1)(iv), 257.74(a)(4), 257.74(d)(1)(iv) Requirements for Slope Protection on Surface Impoundments, Including Use of Vegetation

Problem to Address - The proposed 12" vegetation height standard is based on a U.S. Army Corp reference, but it could be 18" or 24", particularly if there is a maximum "woody" vegetation diameter standard of ½". It is not clear how one will be certified to be "familiar with the complexities of tree/shrubbery removal".

Needed Action – EPA should consider whether the maximum vegetative height can be raised given the ½" diameter limit. In addition, clarification should be provided on the credentials associated with certifying proper tree/shrubbery removal.

¹ Assembled by the William States Lee College of Engineering at the University of North Carolina at Charlotte, and Chaired by Dr. John L. Daniels, P.E., Professor and Chair of the Department of Civil and Environmental Engineering, the NAMAB includes internationally recognized and published experts with experience working with and for the private sector, federal government and academia. The NAMAB provides independent, objective advice on strategic science and engineering matters for the management of coal combustion residuals. The current NAMAB is chartered by Duke Energy and it serves as a model support structure for all types of organizations seeking independent and sound advice on science and engineering issues of concern.

§ 257.90 Whether to Suspend Groundwater Monitoring Requirements Where “No Migration” Demonstration is Made

Problem to Address - The suspension of groundwater monitoring is appropriate where a no migration demonstration is made. A determination of no migration can often be made if sufficient data is collected and available. Besides RCRA, it is commonly used in the Superfund program and would expect it to not be "rare" as inferred by the proposed preamble. In general, the section on "Modification of groundwater monitoring requirements is reasonable and seems to allow some flexibility. Allowing a technical expert to assist in the determination is appropriate. Approval needing to be made by the State Director of an EPA approved CCR program, however, significantly limits the opportunity to obtain this relief.

Needed Action – EPA’s preamble reference to the granting of no migration petitions should not be prejudged and preamble references to no migration approvals being rare should be deleted in the final rule. Conditions identified in EPA’s Guide to Obtaining No Migration Variances for CERCLA Remedial Actions (April 1991) should be acknowledged as appropriate for CCR no migration demonstrations. With a qualified professional engineer certifying the no migration demonstration, States, with or without an EPA approved CCR program, are fully capable of making such a decision. States have already been given this authority for municipal solid waste landfills, and they have extensive experience protecting groundwater with EPA’s Comprehensive State Ground Water Protection and Well Head Protection Programs. Further illustrating why EPA approval of a State CCR program does not instill substantive new capabilities is the Oklahoma program. Oklahoma has an EPA approved CCR program which incorporates the Federal rules by reference. If the proposed no migration provision is finalized, Oklahoma will be able to approve no migration demonstrations. When their program was approved there was no such provision available and thus no associated evaluation of the state’s ability to properly review such demonstrations. They were capable of assessing such demonstrations, before and after they received an EPA approved CCR program. All states should be allowed to certify approval of no migration petitions.

Appendix IV to Part 257; §§ 257.93(b), 257.94(b), 257.95(b), 257.95(d)(1) Addition of Boron to the List of Constituents that Trigger Corrective Action

Problem to Address – With regard to constituents without MCLs, large costs may be incurred for closure and corrective action, not for addressing undue risks but rather simply because background levels are exceeded. That is, remediating constituents to background instead of health-based value is expensive but may not change the risk profile. This likelihood is especially true for Boron. Before adding Boron to Appendix IV, the overall regulatory structure needs to be amended to allow setting risk-based standards and compliance location adjustments. Fortunately, the proposal takes some steps that better align expenditures to addressing environmental risks. Still, the proposal has some shortcomings. The proposal limits action to the

State Director, where the State has an approved CCR program, and EPA in certain cases. This leaves an expected significant gap where expenditures will be driven by exceeding background concentrations rather than a risk-based standard. In making the proposal, EPA is recognizing the need to tie the regulatory cost burden to risk but needs to address the flaw in the current rule without leaving large gaps.

Needed Action – Regarding the establishment of an alternative ground water protection standard, the definition of State Director should not require an approved CCR program. The Federal CCR Rule should simply allow for use of a State certified groundwater protection standard in lieu of a background level. Currently, in other areas of the rule, there are allowances for evaluations and certifications by professional engineers. While the EPA does not specifically identify criteria for what actions can be certified by a third party, the EPA criteria appears to reflect a need to address a problem, a degree of independence from the regulated entity, an expectation of integrity, and the appropriate skills to execute the task. Somehow there is trust that professional engineers can provide those certifications for certain matters. To turn to state regulators and not have the necessary confidence in their integrity and ability regarding establishing groundwater protection standards is inappropriate. There is no requirement for professional engineers to be EPA approved to make certain decisions in the CCR Rule. States should be able to certify environmental groundwater protection standards for CCR constituents for which there is no MCL regardless of CCR program approval. In simple terms, the program approval simply allows a ground water protection standard to be conveyed to the regulated entity in a different document. There are no critical advantages to having a Federally approved CCR program regarding being able to set an appropriate ground water protection standard. The WIIN Act allows EPA approved programs to issue permits addressing Federal CCR requirements, but that does not mean States without an EPA approved CCR program are incapable of setting an appropriate ground water protection standard – quite the contrary. The regulatory language in the proposal is borrowed from the Municipal Solid Waste Landfill Rule – generally from October 9, 1991. With States already approved to make such calls for municipal solid waste landfills, they are already appropriately positioned to provide the alternative groundwater protection standard based on the proposed language – without the need for CCR program approval by EPA. Within the Agency, however, ground water protection has advanced via the December 1992 Final Comprehensive State Ground Water Protection Program (CSGWPP) Guidance and EPA required Well Head Protection Programs.

Lacking a finding that States ground water protection programs are flawed and need the CCR program approval process to set appropriate standards, there is no basis to dismiss the Agency's long standing programmatic relationship with States regarding ground water protection. In an April 4, 1997 EPA memorandum from Timothy Fields, Jr., Acting Assistant Administrator, Office of Solid Waste and Emergency Response, the Agency affirmed the role of CSGWPP in EPA Remediation Programs:

“EPA’s ground-water remediation programs – Superfund, RCRA Subtitle C and D, and Underground Storage Tanks – have an important stake in the CSGWPP process...To the extent authorized by EPA statute and consistent with Agency program implementation objectives, EPA will defer to State policies, priorities, and standards once a State has developed an “adequate program.”

EPA should recognize the State advances made under the CSGWPP and Well Head Protection Programs and allow all States to set the alternative ground water protection standard for non-MCL constituents.

The OK program further explains why an EPA approved CCR program is not substantive in setting an alternative groundwater protection standard. OK has an EPA approved CCR program that references the Federal CCR Rule. If the proposed language is finalized and allows approved programs to set an alternative groundwater protection standard, OK will be able to perform that task. But, when EPA approved the program, there was no such provision or evaluation of the State’s ability to make such a determination. With or without an EPA approved CCR program, OK could look at the regulatory language and make a sound determination based on their experience with the Well Head Protection Program and continuing efforts with EPA’s Comprehensive State Groundwater Protection Program. The CCR program approval by EPA does not make OK more objective or capable in establishing an alternative groundwater protection standard.

As an additional step, EPA should provide additional options for using risk-based criteria for non-MCL constituents. Looking at the logic associated with professional engineers providing certifications, the use of toxicologists with appropriate credentials, such as the Diplomate of the American Board of Toxicology, should be sufficient to set alternative ground water protection standards for non-MCL constituents. In addition, for those entities not wanting to engage an outside expert, there may be an option to use the toxicity values that form the basis of the risks modeled for groundwater for the CCR Rule, instead of the use of background concentrations. Those options should be available for those cases where the State does not provide a ground water protection standard for a non-MCL constituent.

The problem to address is simple, EPA should not be requiring large resource expenditures to address exceedances of a background concentration without a fully applicable process to enable consideration of an alternative standard that considers risk. Fortunately, there are sound basic steps that EPA can take as a result of the proposal that can rationally address the issue.

Problem to Address - § 257.95(h)(2) *Use of Risk-Based Alternative Standards for Remediating Constituents Without an MCL* addresses a series of criteria for States establishing a ground water protection standard. As EPA has broadly worked with States through the Comprehensive State Ground Water Protection Program (CSGWPP), with associated guidance and the Wellhead

Protection Program, there is no justification as to why the current program needs to be replaced with old criteria from the Municipal Solid Waste Landfill Rule. As stated in the March 1, 1995 OSWER Directive 9610.17: Use of Risk-Based Decision-Making in UST Corrective Action Programs:

EPA's regulations for the UST corrective action program already give States latitude to tailor their programs. They do not specify cleanup levels or administrative procedures that States must follow. They simply provide that State or local cleanup programs must be protective of human health and the environment...

Needed Action – Trust the integrity and competence of States, the CSGWPP (that EPA and the States have developed to protect ground water across the country) and delete the dated, unnecessary and inconsistent criteria for setting an alternative ground water protection standard for non-MCL constituents specified in § 257.95(h)(2). For certifications by an appropriately credentialed toxicologist, criteria should be similar to that specified in the CSGWPP Guidance.

Problem to Address – The proposed rule limits the establishing alternative groundwater protection standard to constituents without MCLs. However, under a risk-based approach establishing alternative GWPS standards for constituents with MCLs, could also be appropriate. For example, many states establish different groundwater protection standard based on groundwater use (*e.g.* residential vs industrial). Also, if it could be demonstrated the groundwater only discharges to a large surface water body, it would be appropriate to develop an alternative GWPS that consider attenuations and dilution, as well as the appropriate surface water receptor (human or ecological).

Needed Action—The amended Rule should allow for greater flexibility and further allow-for site-specific, risk-based consideration when setting alternative GWPS that trigger corrective action.

Alternate Ground Water Protection Standard May Not Consider Cost

Problem to Address – In the preamble EPA states:

First, these are “health based levels,” which means that the only relevant consideration is whether the alternate standard will protect potential receptors (both human and environmental); costs or any similar considerations may not be considered.

That position may not always be practical or consistent with the MSWLF Rule language from which regulatory provisions are borrowed. As an example, while there is reference to Lead not having an MCL, there is an MCL treatment technology action triggered when 15 µg/l is

exceeded at greater than 10% of the residences. The difficulty EPA is addressing is that there is no safe level of Lead in drinking water and there are practical limitations to what is achievable. That concept inherently considers costs. As stated in EPA's Final Comprehensive State Ground Water Protection Program Guidance (page A-2):

For example, prevention measures established by EPA under RCRA Subtitle D are to "take into account the practicable capability of a municipal solid waste landfill (MSWLF)." EPA, therefore, considers the cost impacts to MSWLFs in determining which measures to prevent ground water contamination are "possible."

Needed Action – Drop the language in the preamble indicating cost may not be considered and rely on the State actions under the CSGWPP, and toxicologists working with appropriate ground water treatment experts to deal with setting appropriate criteria when as the proposed regulations state: "Remediation of the release(s) is technically impracticable". This is not an issue of the statutory language being different for MSWLF versus CCR, but rather the need to deal with the reality of circumstances being technically impracticable.

Alternative Point of Compliance for CCR Ground Water Monitoring Wells

Background - Importantly, EPA states that it "does not believe the record for the Part 258 (municipal solid waste landfills) requirements would support an alternative means for establishing the relevant point of compliance for CCR groundwater monitoring wells under Section 4004(a)—the RCRA section under which the final CCR rule was promulgated. However, the agency requests comment on whether a State Director, EPA, or an owner/operator subject to EPA oversight and public notice, could establish an alternative point of compliance that would satisfy the standard of no reasonable probability of adverse effect on human health or the environment under RCRA Section 4004(a).

Problem to Address - The record for Part 258 is being misunderstood by EPA. There is no declaration by EPA that all sites or even specific sites meet the MSWLF criteria for an alternative point of compliance. States need to judge the site-specific circumstances to determine if a specific site meets the applicable conditions. Regarding the CCR Rule, the concept should be similar. There is no declaration that sites generally meet the RCRA Section 4004(a) criteria, and the record from the 258 rules is not to be used to determine whether specific sites meet the criteria. The language allows states to make the determination on a site-specific basis. EPA simply needs to condition the determination on the RCRA Section 4004(a) criteria. From EPA's Handbook of Groundwater Protection and Cleanup Policies for RCRA Corrective Action (page 6.2):

The location of the point of compliance should depend on whether the final cleanup is selected to (1) return usable groundwater to its maximum beneficial use; or (2) contain contamination within groundwater that EPA or a State has designated as not being

usable (see Final Cleanup Goals and Groundwater Use Designation) or in situations where the regulator determined that returning usable groundwater to its maximum beneficial use is technically impracticable.

The main point in addressing “adverse effect on human health or the environment” is that there needs to be a receptor. Monitoring ground water close to the source provides an important purpose - early detection of releases so that actions can be taken before receptors (human or ecological) are subject to adverse effects. However, a GWPS exceedance at point of compliance at the edge of the waste management unit may not reflect actual risks posed by the WMU especially with regard to off-site human receptors. Where the goal is protection of human health and the environment site-specific factors (distance to receptors, constituents of concern, subsurface hydrology, location of surface waters, etc.) can be important as to whether an alternative compliance point is sound. Additionally, a concept that is used in Superfund where there are multiple units that are close to one another is to define a waste management area. Flexibility on a unit’s compliance point, could also effectively address a similar multi-unit situation.

While the “standard” regulatory compliance point may be generally applicable, there are cases where an alternative compliance point is appropriate. EPA proposed language to add flexibility similar to that for MSWLFs where there is a technical impracticability – the EPA Handbook referenced above, clearly considers point of compliance adjustments for such situations. There may be other situations where compliance point adjustments are appropriate such as safety issues with a roadway or a surface water body at the unit boundary. Of most importance in whether there is “no reasonable probability of adverse effect on human health or the environment,” has to do with the location of receptors – groundwater contamination at the unit boundary does not cause adverse effects until there is migration at levels that impact a receptor. Frankly, there are situations where there may not be a groundwater aquifer, or the unit is on a massive impermeable shale formation such that inherently groundwater does not pose a reasonable probability of adverse effect on human health or the environment. Similarly, because many facilities are located adjacent to large water bodies, off site migration of contaminants *via* groundwater to drinking water wells will not be feasible at a number of sites.

Needed Action – EPA should allow appropriate flexibility in specifying the compliance point, consistent with the proposed changes and the Agency’s handbook on corrective action. A State authority can find site specific circumstances warranting the adjustment of a compliance point where the criteria under RCRA Section 4004(a) can be specified and met. Adverse impacts need to be judged based on the exposure of receptors, and the State is fully capable of making such a judgement. Within the CSGWPP Guidance states are directed to look at “current and/or reasonably expected future ground water uses and benefits.” Thus, states can appropriately consider receptors in certifying actions that will achieve no reasonable probability of adverse effect on human health or the environment. Moving the compliance point can potentially result

in a substantial cost saving without impact to human health or the environment.

As with the development of an alternative ground water standard for non-MCL constituents, movement of the compliance point should be allowed via State certification regardless as to whether the State has an EPA approved CCR program. Additionally, third parties with appropriate credentials should also be able to address changes to the compliance point. While EPA may prefer a situation where all States have EPA approved CCR programs, or EPA directly permitted facilities, significant gaps will likely occur. That is not a justification for EPA to dismiss solutions to deal with the gaps, while the Agency acknowledges environmental and cost benefits associated with adjustments via EPA approved State CCR programs.

Type and Magnitude of Non-Groundwater Releases That Would Require a Facility To Comply With Some or All of the Corrective Action Procedures in §§ 257.96–257.98

Problem to Address – The currently required full corrective action process for remediating releases was designed with major releases in mind and may not be appropriate for small releases which could be cleaned up in a short time. This new regulation is intended to remedy the situation so that small non-groundwater releases that can be addressed quickly will be subject to reduced corrective action procedures. EPA proposed that non-groundwater releases that are addressed within 180 days would be subject to reduced corrective action procedures and solicited comment as to whether the 180-day criteria should be longer or shorter. While 180 days does appear to reflect relatively minor releases, there is no data to critique regarding the 180-day criteria, and the time to complete corrective action may not be the best measure of whether a release is small enough to justify reduced corrective action procedures. If corrective action implies stopping of all seeps (i.e. stopping of all releases due to seepage) then 180 days may not be feasible to all cases. It is quite unlikely the appropriate site investigations, design, bidding, and construction can be completed in 180 days). Similarly, if the corrective action needed to eliminate the seep involves dewatering the ash and constructing a low permeability cover, it is unlikely this can be done in 180 days. Even in cases of small releases, if the corrective action requires a permit, the 180-day criteria may not be sufficient.

Needed Action – There are a couple of options EPA needs to consider: (1) With the publicly available information provided under the CCR Rule on the internet. EPA could examine the range of times for corrective actions and the importance of the release. Based on the data EPA could then determine a timeframe that justifies the time-based criteria. Such a process would improve upon the apparent opinion-based proposal and the array of commenters that have other opinions that are not based on data. (2) Rather than get tied up with defining a cleanup timeframe to reflect scenarios warranting reduced procedures, EPA should consider a more direct approach as to what warrants a reduced process. As structured, the EPA proposed

provision does not apply to direct releases to groundwater from the unit. A reasonable further restriction would be to exclude any corrective actions that includes off-site property (note, the critical “catastrophic” non-groundwater releases, that EPA based the full corrective action procedures on, all involved some off-site actions). Finally, there could be an exclusion of any release whose cause poses an imminent dam failure concern. Such an approach would drop any reference to a specific timeframe.

The more appropriate approach for EPA is to shift to option #2 (where the criteria eliminates the groundwater releases, situations that warrant off-site actions, and causes that have the potential for imminent dam failure concern). It more directly and simply addresses the concern raised. In addition, the timeframe option has a few relative weaknesses. It is difficult to soundly set the timeframe; even for actions that are corrected quickly, corrective action that involves off-site property warrants the full process; and the procedures get more complicated when the regulated party does not have upfront certainty regarding completion times – and thus is uncertain as to which provision will apply.

Additionally, EPA solicits comments on whether to provide limited public involvement prior to completion of clean-up. EPA is considering delaying the initial notification and requiring details of the release and planned remediation or requiring a brief interim report to provide information on release and ongoing remediation. Regarding this solicitation, it is not clear how public involvement would work, and for the intended small releases such a requirement would largely function to delay corrective action.

Selection of corrective action under the proposed language can be altered, under certain conditions, by a State Director with an approved CCR program [§ 257.97]

Problem to Address – Such decisions are important because they allow for site-specific knowledge to ensure resources spent for corrective action are most effectively utilized. Requiring the State Director to have an approved CCR program or for EPA to exercise such authority contingent on appropriations, leaves an expectation that a major portion of the utilities will not be able to exercise the warranted flexibility that EPA recognizes, but limits. States have made these kinds of calls for MSWLFs (whose regulation is the source of the proposed CCR provision) and other situations. As the Agency has allowed professional engineers to certify the validity of certain actions, States should be able to provide similar certifications here, without the need for an approved CCR program. EPA does not provide the criteria for allowing professional engineers to provide certifications, but it appears to be predicated on a need to better address a problem, have an independent and knowledgeable evaluation. Professional engineers are not required to have some form of special EPA approval, and neither should states.

Needed Action – Allow State Directors the authority to address the new conditions associated with the Selection of a Remedy without the need for a CCR approved program.

Problem to Address – The proposed rule provides needed flexibility for corrective action; however, further flexibility should be clearly provided to the State Director (with or without a CCR approved program). As with EPA’s UST program, States should have the latitude to use risk-based decision-making that is protective of human health and the environment. As stated in the March 1, 1995 OSWER Directive 9610.17: Use of Risk-Based Decision-Making in UST Corrective Action Programs:

EPA’s regulations for the UST corrective action program already give States latitude to tailor their programs. They do not specify cleanup levels or administrative procedures that States must follow. They simply provide that State or local cleanup programs must be protective of human health and the environment...

As presented in this policy statement, the use of risk-based decision-making in UST corrective action programs is conceptually and operationally compatible with the CERCLA remedial and RCRA corrective action programs, EPA’s guidance on development of comprehensive state ground water protection programs, and the environmental justice and brownfields initiatives.

Needed Action – In addition to the proposed language associated with Selection of a Remedy, the State Director should be allowed to certify that a risk-based corrective action will result in no reasonable probability of adverse effect on human health or the environment and is acceptable under the CCR Rule. States have the knowledge and experience to make such determinations and have done so in association with other EPA programs. Additionally, other third parties with appropriate credentials should be able to allowed to provide the needed certifications.

Revision to allow the use of CCR for the cover system during forced closure [§ 257.102]

Problem to Address – EPA has apparently made a regulatory interpretation that disallows beneficial use in certain circumstances despite the clear regulatory language of § 257.50(g) of the April 17, 2015 CCR Rule:

This subpart does not apply to practices that meet the definition of a beneficial use of CCR.

If EPA wanted to have certain beneficial use practices subject to the subpart, EPA had two options, neither of which were exercised:

- EPA could have added language to limit the § 257.50(g) exclusion of practices that meet the definition of beneficial use.
- EPA could have specified additional conditions in the definition of beneficial use of CCR.

Furthermore, the CCR Rule did not assess risks or economic impacts associated with the possible beneficial uses of CCR for closure. The preamble (74 FR 21302, April 17, 2015) affirms the regulatory language:

This rule does not regulate practices that meet the definition of a beneficial use of CCR.

Apparently, the regulatory interpretation by EPA is based on provisions within the CCR Rule that direct “the CCR unit must cease receiving CCR”. But, based on § 257.50(g) that language does not apply to practices that meet the definition of a beneficial use of CCR. To illustrate the functioning of regulatory language that excludes a practice from other provisions, the Municipal Solid Waste Landfill (MSWLF) Rule provides an analogous example. Within the MSWLF Rule, § 258.28(a) provides a similar restriction regarding the placement of a material in a MSWLF – “Bulk or noncontainerized liquid wastes may not be placed in MSWLF units...”. The MSWLF Rule also included a separate provision, § 258.4, that specified that if certain conditions were met, the § 258.28(a) liquid restrictions no longer apply. Conceptually, this MSWLF situation is the same as § 257.50(g) situation in the CCR Rule, which more broadly exempts practices that meet the definition of beneficial use from the Subpart. Looking across EPA regulations, the phrase “This Subpart does not apply...” has frequently been used. In all of these cases, there is some provision in the Subpart that would apply, if not for the “This Subpart does not apply...” provision. That is the purpose and functioning of such provisions. The following are some additional examples within the CCR Rule as well as in other EPA rules:

§ 257.50

(d) This subpart does not apply to CCR landfills that have ceased receiving CCR prior to October 19, 2015.

(e) This subpart does not apply to electric utilities or independent power producers that have ceased producing electricity prior to October 19, 2015.

(f) This subpart does not apply to wastes, including fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated at facilities that are not part of an electric utility or independent power producer, such as manufacturing facilities, universities, and hospitals. This subpart also does not apply to fly ash, bottom ash, boiler slag, and flue gas desulfurization materials, generated primarily from the combustion of fuels (including other fossil fuels) other than coal, for the purpose of generating electricity unless the fuel burned consists of more than fifty percent (50%) coal on a total heat input or mass input basis, whichever results in the greater mass feed rate of coal.

(h) This subpart does not apply to CCR placement at active or abandoned underground or surface coal mines.

(i) This subpart does not apply to municipal solid waste landfills that receive CCR.

§ 63.11514

(e) This subpart does not apply to research or laboratory facilities, as defined in section 112(c)(7) of the Clean Air Act (CAA).

(f) This subpart does not apply to tool or equipment repair operations, facility maintenance, or quality control activities as defined in § 63.11522, “What definitions apply to this subpart?”

(g) This subpart does not apply to operations performed on site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such state), the National Aeronautics and Space Administration, or the National Nuclear Security Administration.

(h) This subpart does not apply to operations that produce military munitions, as defined in § 63.11522, “What definitions apply to this subpart?”, manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such state), or equipment directly and exclusively used for the purposes of transporting military munitions.

§ 60.110

(b) This subpart does not apply to storage vessels for petroleum or condensate stored, processed, and/or treated at a drilling and production facility prior to custody transfer.

§ 228-1.1

(b) This Subpart does not apply to the following:

(1) coating lines used in research and development processes which produce a product for study rather than eventual sale;...

There appears to be no other interpretation in the history of EPA regulations where the multitude of “This Subpart does not apply...” provisions has been interpreted as the Subpart still applies. Likewise, there is no other interpretation in the history of EPA regulations where a differently worded provision exempting the applicability of a separate provision within the Subpart (such as the MSWLF Rule’s provisions on free liquids) is interpreted as the exempted provision still applies.

A positive step by EPA acting in the proposal to allow for some use of CCR in pond closure. The direction taken in the proposal, however, is overly complicating a process that is already more appropriately addressed by allowing the application of the beneficial use criteria. The solution is for EPA to modify their interpretation and abide by the § 257.50(g) language. If EPA believes they are not comfortable with the beneficial use exclusion, EPA should conduct appropriate data gathering, risk and economic analyses and propose changes to the exclusion, rather than

“interpret” regulatory coverage that is not there. This is especially important because the informal risk evaluation presented in the proposed rule, which evaluated how risk might change with CCR depth, did not support any restrictions on the amount of CCP that could be used. It should be emphasized that EPA’s beneficial use definition contains a provision necessitating that:

...the user must demonstrate and keep records, and provide such documentation upon request, that environmental releases to groundwater, surface water, soil and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use.

Given this condition in the definition of beneficial use, and EPA’s lack of applicable beneficial use data, risk and economic analyses to articulate a valid flaw, it is hard to understand the purpose of the current contorted and inconsistent interpretation of “This Subpart does not apply...”.

To the extent the proposed language is intended to improve environmental actions over the beneficial use criteria, it fails to do so. The underlying problem is that while the Beneficial Use conditions set performance standards where the risk demonstration burden is on the user, the proposal provides specific technological conditions for which the Agency apparently presented no data on specific closure practices, analysis of the amounts and types of materials, relative cost of extraction and transportation, assessments of surface stability and dam safety issues associated with pond closure designs, or associated risk assessments. In setting performance-based standards to meet accepted risk criteria such as the beneficial use conditions, the regulated party has flexibility in how to achieve the goals from an engineering perspective, and thus the technological regulatory burden for the EPA is quite limited. To apply specific technological closure practices, as provided in the proposed rule, EPA needs to understand the engineering aspects of the conditions, collect appropriate data, and conduct the necessary analyses – in this case there is a lack of understanding, data and analyses.

There are major cost savings associated with beneficial use of CCR for pond closure, and under the beneficial use conditions the environmental concerns are addressed. EPA needs to recognize that with an activity such as beneficial use during the closure of a CCR surface impoundment, the § 257.50(g) exemption would not impact regulatory deadlines for closure, nor the CCR Rule’s groundwater protection standards – in fact, those CCR Rule environmental standards will be the context in which the user must document the beneficial use will be at or below relevant regulatory and health-based benchmarks. In addition, any unit that is subject to corrective action must have a certification from a professional engineer that the remedy meets the requirements – where closure is part of the remedy, that would render beneficial use practices associated with closure as part of the remedy certification.

For the selection of a remedy for corrective action, EPA looks to a professional engineer to certify the remedy will meet the performance requirements (i.e., MCLs or background). There is not an attempt by EPA to impose their “guess” on the site-specific engineering needs. That reasoning needs to be applied by EPA to the beneficial use issue – EPA should not set technology requirements where there is not a sound understanding and support. The beneficial use conditions are appropriate and should govern as the regulatory language states. If, however, further oversight is believed necessary, EPA could add a requirement that the State (with or without EPA approved CCR program), must certify that the use meets the beneficial use conditions, and does not adversely impact corrective action, groundwater, or closure.

EPA should simply state in the preamble that while practices that meet the definition of beneficial use are not subject to the subpart, that such uses during closure of regulated disposal units cannot alter timetables for the closure or the environmental groundwater standards applicable to the disposal units. Furthermore, EPA can state those CCR Rule groundwater protection standards form the relevant environmental criteria within the definition of beneficial use, where that use involves the closure of CCR disposal units.

To try to do more from a regulatory sense, without due diligence creates more problems than benefits – the glaring problem being while the Beneficial Use conditions include a risk assessment, the proposed conditions do not require a risk analysis nor has the Agency conducted such analyses to support the proposed conditions. To illustrate the flaws in the proposed approach, each of the proposed provisions are examined:

1. **Only CCR generated on-site may be used in the construction of the cover system.** – While it may be rare that CCR generated elsewhere will be brought on-site, there is no rationale to support this provision versus simply relying on the Beneficial Use criteria. Under the Beneficial Use criteria, the CCR must replace a virgin material that would otherwise need to be extracted and would have to be environmentally protective. If this is accomplished with off-site CCR, the prohibition to force the extraction of virgin materials is without environmental purpose. (As a general matter, if the timeframe for closure is not extended, and the use of an alternative material does not pose added risks from the closed unit, the use of an off-site CCR should not be the issue.)
2. **CCR may be used exclusively for the purposes of grading and contouring of the cover system...** –Individually, and together, Beneficial Use conditions 1, 2 and 3 would readily dismiss EPA’s concern about filling the unit to capacity.
 - (1) The CCR must provide a functional benefit;
 - (2) The CCR must substitute for the use of a virgin material, conserving natural resources that would otherwise need to be obtained through practices such as extraction;

- (3) The use of the CCR must meet relevant product specifications, regulatory standards or design standards when available, and when such standards are not available, the CCR is not used in excess quantities;

As for other concerns by the Agency, the conditions in place for Beneficial Use are more appropriate. At the end of last year, a worker died during a pond closure process. The surface of the drained pond was not sufficiently stable and an operator and his equipment were buried and lost. Providing a stable surface for equipment is an important part of the closure process. Yes, surface stabilization can be done with virgin materials, but there is no reason to eliminate consideration of beneficial use. As an added note on stabilization, much of such a use would also be considered grading or contouring and could involve a blending layer. The Agency stated in the final CCR rule that EPA was supportive of beneficial use and set appropriate conditions. To the extent EPA has thoughts regarding grading and contouring designs for the variety of structures, it appears that there has been little to no in-depth evaluation. Site specific assessments and documentation associated with the Beneficial Use conditions is the appropriate direction. To the extent, EPA conducts a meaningful study in this area, an appropriate action would be to issue future guidance that supports the use of the Beneficial Use conditions. There should also be an understanding that beneficial use associated with such units could involve FGD Gypsum as a soil conditioner to support the vegetative layer, or possible placement of fly ash amended concrete – such as solar panel supports if the land is used for a solar panel array.

3. **EPA is proposing a “lowest bound” prohibited plane and an “upper bound” allowable plane** – With some of the suggested thoughts, it is not clear what EPA is trying to accomplish from an engineering or environmental sense. For a non-incised unit, the dike will have a slope. The suggested vertical plane constraint is picking at a minor portion because any beneficial use would occur within the unit. How one modifies the dike, gets appropriate slopes, and does not damage the integrity of the dike, which can still be vulnerable to failure, is a more complex site-specific design task than the thoughts presented in the proposal. These sites can have very different topographical structures, which can lead to different closure designs. EPA seems to have focused on an attic fill cap design, but some units may be more appropriately engaged in using an inverted crown, or a landform design. As the regulation applies to non-coal mine sites, there may be a required need to restore the land to prior contours in such circumstances. Additionally, even CCR that is part of grading/contouring could be blended into the upper layer for sound engineering reasons. The beneficial use provision simply and effectively deals with this issue, whereas the proposal fails to consider engineering needs associated with various design needs. While the Beneficial Use conditions incorporate risk assessment measures, the proposed direction does not have a

supporting risk analysis, nor is it a condition. It should also be recognized that CCR levels in these units is not necessarily uniform, and they may significantly change as settling occurs during dewatering. As for an incised unit, the more appropriate view is what amount of virgin materials are going to need to be extracted, and can they be effectively replaced with CCR within the closure time limits – and meet the environmental conditions.

- 4. The final cover system using CCR for grading and contouring must be constructed with slopes no steeper than 1:20.** – Not that this is an unreasonable level, but the provision is adding complexity without value versus simply using the Beneficial Use conditions. There, CCR needs to provide a functional benefit and replace virgin materials that would otherwise be used. This prevents someone from designing a highly sloped mound of CCR that has no functional purpose beyond disposal. There needs to be an engineering assessment as to what is necessary for a site, whether the cap be an attic fill, inverted cap, or landform. The Beneficial Use conditions prevent such shams.

Needed Action – The EPA fortunately has a solid solution in hand, the Beneficial Use conditions. This should be the natural choice to address the issue - namely, the beneficial use of CCR during the closure process. There are multiple ways to make the appropriate change, but the best is for EPA to affirm that § 257.50(g) does what it says – exempts processes that meet the definition of beneficial use from the subpart. This would also be consistent with the April 17, 2015 preamble statement: “This rule does not regulate practices that meet the definition of a beneficial use of CCR.” As proposed, the language tries to regulate beneficial use practices associated with the unit as disposal. That is inappropriate. The conditions of the Beneficial Use definition include providing a functional benefit, substituting for virgin materials, meeting relevant specifications, and addressing risks. The proposed direction is technically flawed regarding the uses it does allow and prohibits sound beneficial uses without supporting environmental risk analysis or economic analysis (while under the beneficial use definitions these operations would be subject to an appropriate risk assessment). In the preamble to the proposal, EPA mentions the need to restrict uses due to environmental risks associated with adding CCR. With the beneficial use definition there is a need to document appropriate risk analyses. Despite the expressed concern regarding risks, there is no analysis or requirement for a risk analysis associated with EPA’s proposed approach. Having an opinion and shrouding it in a reference to risk and other concerns, creates a scientific illusion – this is not, however, a replacement for actual data and analyses. It should be noted that just because the condition forcing closure may have posed undue risk, the addition of CCR for beneficial use may not add risk. For example, prior to using CCR in the closure of a surface impoundment, the free water will be drained. If the groundwater modeling considers the presence of an infinite source, the addition of CCR will not alter the risk. Furthermore, placement of “dry” CCR will absorb water and could lessen the flow of leachate to groundwater, and of course these closure actions are taking place over a very limited period, after which the unit may be covered by an impermeable membrane. Those factors significantly call into question, EPA’s lack of an appropriate risk

assessment to deal with their proposed direction. With the Agency's commitment to support beneficial and the recognition that the closure conditions, including deadlines, remain in place, the Beneficial Use conditions would fully address the issue. The attempt to address a beneficial use outside the Beneficial Use provision with a new set of conditions has engineering and environmental errors reflective of the lack of supporting data and analyses to properly execute the type of regulatory structure proposed. Again, EPA should use the Beneficial Use conditions – it is in place, and appropriately addresses the issue, which is the beneficial use of CCR during the closure process. A regulatory interpretation for beneficial use in line with the multitude of EPA's "This Subpart does not apply..." provisions is sound and necessary.